

### Abstract

The present invention provides a data collection system having: (a) at least one sensing means to detect and receive a visible light signal; (b) an optical characteristic recognition processing means which receives signals from said at least one sensing means; (c) at least one optical signal means associated with a respective one of said sensing means which generates, reflects or transmits visible light to said sensing means; wherein said optical signal means causes an optical characteristic to be visible to, or sensed by, said sensing means, said optical characteristic being caused to change when the relative angle between said sensing means and said at least one optical signal means is changed, whereby change in said optical characteristic is processed by said processing means to identify a physical or other characteristic of said at least one optical signal means. The present invention further provides a gaming system such as a computer based, console based, arcade based gaming system, wherein a system as described in the previous paragraph is utilised to provide orientation data to a control system for said gaming system and or an identification mechanism to allow access to said gaming system. The present invention further provides an optical signal panel for use in an object orientation data collection system and or in an identification system, said optical signal panels including a plurality of optical signal means which independently or in association with each other produce a change in the visible signal emanating from said panel, said signal being adapted to be processed by a signal processing means to identify and or quantify the magnitude and or direction of change in orientation of said panel relative to a sensing means which senses said optical signal.